



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Ludwig et al
Serial No.: 08/131,523
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Art Unit: Unknown

Examiner: Unknown

For: Multimedia Collaboration System
Commissioner of Patents and Trademarks
Washington, D.C. 20231

STATEMENT DESCRIBING PRODUCT DEVELOPMENT

Vicor's Method of Doing Business

Applicants are officers or employees of or otherwise associated with Vicor, Inc. (Vicor) and have assigned the subject invention to Vicor. Vicor is a systems engineering firm. That is, Vicor is in the business of designing and developing customized computer-based systems for specific clients. In general, Vicor does not develop generic "off-the-shelf" systems for delivery to customers generally, nor does it have an R&D group that develops such systems in advance of a request for a particular system from an existing or potential client.

Instead, prior to undertaking system development work, representatives from Vicor meet with representatives of a client or potential client to discuss that company's particular business environment and needs. As a result of these discussions, Vicor identifies a set of client-specific system requirements from which it prepares a proposal to the client outlining the terms pursuant to which Vicor proposes to develop a customized computer-based system that meets these requirements. Often, at this stage, the client will engage Vicor to conduct a "feasibility study".

CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that the following paper and/or fee is being deposited with the United States Postal Service as First Class Mail in accordance with 37 C.F.R. 1.8 on the date indicated below, addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231

Signature

Date

In the event that Vicor and the client enter into a development agreement, the client agrees to pay for the development and implementation of the system (on a time and materials or fixed price basis) in accordance with the specified client-specific requirements. In exchange, the client receives an option to license or purchase commercial versions of the system (assuming successful completion of the development process) for a specified per-unit amount. The client assumes the risk that Vicor's development effort may prove unsuccessful, in which case the client bears the cost of a partially developed system which may be of little or no use. In so doing, Vicor relies on its track record and management and technical expertise in systems integration to persuade the potential client to pay for the development of the proposed system.

Transactions relating to this patent application.

In mid-1991, Vicor began discussing collaborative teleconferencing system requirements with a number of parties. The first (and, up to the filing of the application, the only) party which has entered into an agreement with Vicor to develop such a teleconferencing system is a company which, for the sake of confidentiality, will be referred to as Client X. Pursuant to a July, 1991 proposal, Vicor offered to develop a customized teleconferencing system which forms, at least in part, the subject matter of the invention of this patent application. Client X agreed to maintain as confidential (subject to standard exceptions) all of the technical information relating to the system being developed. Furthermore, Vicor provided no warranty or other guarantee that it would in fact successfully complete development of the system.

The development of the teleconferencing system described in the present application included two major "milestones:"

The first "milestone" was the development of a rudimentary prototype which was delivered to and evaluated by Client X to ascertain the technical feasibility of Vicor's proposals as well as to

judge Vicor's technical expertise. The second "milestone" was a pilot system which, once delivered, was tested in a realistic business environment by Client X personnel to determine the operational viability of the system - i.e., whether the system would work for its intended purpose and thus be of benefit to Client X. This second "milestone" also included a number of distinct conditional developmental phases each of which had to be completed to the satisfaction of Client X before it would authorize payment for the development of a subsequent phase.

The prototype system was developed by Vicor pursuant to a proposal letter (as amended) executed in August, 1991 and was installed in January, 1992. It consisted of four workstations, interconnected by separate digital data and analog audio/video networks, all in close proximity in a development area on the premises of Client X. The workstations had facilities to capture and reproduce spoken audio and video images. A mosaic video image of up to four user's images could also be created. The prototype system also included limited teleconferencing features, such as allowing users to share "windows" of information on their workstation screens, as well as some graphical user interface features such as face icons. In addition, the prototype system included a crude form of multimedia mail and was connected to a VCR for analog audio/video storage.

The prototype system was and still is located at Client X's premises in a non-operations environment. It was never intended to be (nor has it been) tested in Client X's actual desktop computing environment, in which the specified system, once developed, is intended to operate. The prototype was kept in place, as a test bed for evaluating modifications to the pilot system described below, through the date of filing the application.

Once Client X was satisfied that Vicor possessed sufficient technical expertise to justify continued investment in the second phase of the development process, (i.e., reached the first "milestone"), it entered into an agreement with Vicor to develop a pilot system. Only by testing

the pilot system in a realistic business environment (i.e., on the desktops of Client X employees in actual business use) could Vicor and Client X determine whether the system would work for its intended purpose (and, if not, which changes were necessary). This agreement was executed in June, 1992 and contained a number of distinct developmental phases. For example, phase A included a LAN-based system and phase B included a WAN-based extension of the system.

As a result of this agreement, the initial hardware and software components of the pilot system were delivered to Client X and rendered usable in December, 1992. The pilot system consisted of 30 workstations which (in accordance with phase A) were interconnected by means of separate digital data and analog audio/visual networks, and which had audio/visual capture and reproduction capabilities. Certain features of the prototype system were no longer present (e.g., the VCR), and additional features were added, such as more scalable video mosaicing capabilities and enhanced call control and graphical user interface features (e.g., a rolodex and the "leave word" feature).

Although the pilot system was based, in part, on the prototype, substantial changes had to be made in an endeavor to accommodate the demands of a realistic business environment. This was partially due to the fact that the increased number of workstations required more scalable solutions, resulting in different hardware and software configurations, and partially due to the fact that Vicor could not reproduce actual operating conditions in a development environment.

The pilot system components were installed in an actual work environment on an experimental basis. Given the nature of the system, particularly the fact that it is intended, among other things, to replicate a face-to-face collaboration as closely as possible, this experimental activity could only have occurred in an operational environment. Subject to confidentiality restrictions, employees of Client X used the system for their actual business activities. As they were neither technically qualified nor otherwise skilled in developing computer systems, this experimental

activity had to be conducted under the direct control and supervision of the Applicants. The users provided the Applicants with information regarding the operation of the system, particularly with regard to failures and other examples of inoperability. The Applicants also made regular visits to Client X's facilities in order to inspect the pilot system and monitor its performance and the effects of changes made as a result of the testing.

As a result of this experimental activity, Vicor made numerous changes to the pilot system, including the addition, deletion and modification of various architectural, call control and user interface features. These included not only changes to the user interface and other features to make the system usable in its intended operational environment, but also substantial changes that affected even the most basic system features, such as the capture and display of a video image of a workstation user.

Once the initial experimentation with the LAN-based pilot system had sufficiently demonstrated that the system as conceived by the Applicants was feasible (i.e., completion of phase A), Client X authorized Vicor (in mid-1993) to commence the development of a WAN-based system.

REMARKS

It is submitted that, at the time of the agreement dated June, 1992, the invention was not reduced to practice as there was no reasonable certainty that any embodiment of the invention would work for its intended purpose. For example, it was unclear whether the performance and Usability of the system would be acceptable. Would employees of Client X actually use the system to conduct a teleconference, or would the system be so cumbersome that they would instead use the telephone or walk down the hall? Only by testing the system on Client X's premises in an operational business environment could the Applicants determine which changes, if any, would enable the system to overcome these hurdles. This is evidenced by the

experimental activity conducted following the delivery of the pilot system. Consequently, there was no reasonable basis to conclude that there existed an embodiment of the invention capable of working for its intended purpose even at the time of delivery of the pilot system.

Prior to the delivery of the pilot system neither the Applicants nor Vicor attempted to commercialize this invention nor did Vicor entered into any agreements, apart from the development agreements with Client X, involving the development or commercialization of a teleconferencing system. Furthermore, prior to the delivery date, neither Vicor nor the Applicants solicited or received any purchase orders for units of the system, nor had they prepared or received any other typical commercial sales documents such as price lists or quotations. Moreover, they had not publicly demonstrated the system at trade shows or conventions, or advertised any embodiment of the system in publicity releases, brochures, periodicals or the like.

Furthermore, it is submitted that the delivery of the pilot system to Client X was a necessary precursor to the reduction to practice of the invention, as the system had to be tested in an actual business environment. As noted above and described in the Background section of the specification, one of the goals of the collaboration system is to replicate face-to-face collaboration as closely as possible in an automated work environment. To do so, the system must interface with or replace much of the electronic communication equipment currently found in the modern office. Only experimentation in an actual work environment could provide Vicor with reasonable certainty that it had developed, or even could develop, such a system meeting acceptable levels of performance, usability and cost.

Applicants submit that this testing was a necessary step toward the reduction to practice of the invention. Applicants further submit that this testing did not go beyond any of the guidelines or

factors set forth in the MPEP at 2128.01, and did not contravene any of the public policies underlying 35 U.S.C. 102(b).

Should the Examiner have any questions in this regard, please call the undersigned at (415) 926-6200.

Respectfully submitted,

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